

App. No.: 09/844,965
Art Unit: 1744

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Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently amended) A system for washing, disinfecting, or sterilizing a medical or dental instrument or device, the system comprising:

at least a first station configured to house the object; medical or dental instrument or device, the first station comprising:

a first holder at the station, the first holder being adapted and configured for supporting the object medical or dental instrument or device;

a first sonicator comprising an ultrasonic irrigated probe at the station and located adjacent a position taken by the object medical or dental instrument or device in the first holder and wherein the ultrasonic irrigated probe is adapted and configured to impact the medical or dental instrument or device object in the first station with ultrasonic energy and to provide ultrasonic energy from a point at the first station; the irrigated probe and is movable for manual sonic cleaning of the dirty objects medical or dental instrument or device; and

a first liquid transporter adapted and configured to circulate at the station and spray around and against the object medical or dental instrument or device a wash composition, an antimicrobial composition comprising peroxycarboxylic acid at 20 to 25 degrees C and a pH of 5 to 7, a rinse composition, or to circulate and spray a plurality of these compositions; and

emitter adapted and configured to impact the object with light or microwave energy either during or after circulating the antimicrobial composition;

sterilant system comprising an injector configured to add sterilant comprising chlorine dioxide; the injector comprising pressure release valve configured to release at the station gaseous sterilant from pressurized vessel; and vent adapted and configured to evacuate sterilant gas from the station; and

the system further comprising a dryer adapted and configured to dry the object medical or dental instrument or device in the presence of a sterilant, wherein the dryer comprises:

a sterilant system comprising:

App. No.: 09/844,965
Art Unit: 1744

an injector configured to add sterilant comprising chlorine dioxide; the injector comprising a pressure release valve configured to release the gaseous sterilant from pressurized vessel; and a vent adapted and configured to evacuate the sterilant gas from the dryer;

wherein the medial or dental instrument or device comprises diagnostic instruments, trays, pans, holders, racks, forceps, scissors, shears, saws (~~e.g. bone saws and their blades~~), hemostats, knives, chisels, rongeurs, files, nippers, drills, drill bits, rasps, burs, spreaders, breakers, elevators, clamps, needle holders, carriers, clips, hooks, gouges, curettes, retractors, straightener, punches, extractors, scoops, keratomes, spatulas, expressors, trocars, dilators, cages, glassware, tubing, catheters, cannulas, plugs, stents, endoscopes (~~e.g., noninvasive flexible and rigid fiber optic endoscopes~~), endotracheal tubes, anesthesia breathing circuits, cytosopes, arthoscopes and related equipment, and the like, or combinations thereof.

2-4. (Canceled)

5. (Currently Amended) The system of claim 1, wherein the first sonicator is adapted and configured to provide ultrasonic energy throughout fluid liquid at the first station.

6. (Currently Amended) The system of claim 5, wherein the first station further comprising comprises a second sonicator positioned on the exterior of the first station, adapted and configured to provide ultrasonic energy from probe outside the first station.

7. (Canceled)

8. (Currently Amended) The system of claim 6, ~~further comprising holder adapted and configured to support the object adjacent~~ wherein the second sonicator probe is positioned near the first holder.

9. (Canceled)

App. No.: 09/844,965
Art Unit: 1744

10. (Currently Amended) The system of claim 1, wherein the first liquid transporter comprises a pump and a valve adapted and configured to circulate ~~fluid~~ liquid at the first station and around and against the ~~object~~ medical or dental instrument or device, to add ~~fluid~~ liquid to the first station, and to remove ~~fluid~~ liquid from the first station.

11-13. (Canceled)

14. (Currently Amended) The system of claim 11, wherein the first sonicator applies ultrasonic energy throughout ~~the~~ a wash composition.

15-17. (Canceled)

18. (Currently Amended) The system of claim 1, wherein the first liquid transporter comprises a first sprayer adapted and configured to apply to the ~~object~~ medical or dental instrument or device the an antimicrobial composition, ~~the~~ a rinse composition, or a plurality of these compositions.

19. (Currently Amended) The system of claim 18, wherein the first station comprises a first spray chamber.

20. (Currently Amended) The system of claim 1, wherein the first liquid transporter is adapted and configured to sequentially circulate ~~the~~ a wash composition, ~~the~~ an antimicrobial composition, and ~~the~~ a rinse composition.

21. (Currently Amended) The system of claim 1, wherein the liquid transporter is adapted and configured to circulate ~~the~~ a wash composition, ~~the~~ an antimicrobial composition, a first rinse composition, a second rinse composition, or to circulate a plurality of these compositions.

App. No.: 09/844,965
Art Unit: 1744

22. (Currently Amended) The system of claim 21, wherein the liquid transporter is adapted and configured to sequentially circulate, in this order, ~~the~~ a wash composition, ~~the~~ a first rinse composition, ~~the~~ a antimicrobial composition, and ~~the~~ a second rinse composition.

23. (Currently Amended) The system of claim 1, further comprising a dispenser adapted and configured to add a wash concentrate, ~~an~~ antimicrobial concentrate, a rinse concentrate, or to add a plurality of these concentrates.

24. (Currently Amended) The system of claim 1, wherein the dryer is adapted and configured to dry the ~~object~~ medical or dental instrument or device at the first station.

25. (Currently Amended) The system of claim 1, wherein the dryer comprises a blower adapted and configured to circulate heated gas at the first station.

26-28. (Canceled)

29. (Currently Amended) The system of claim 1, further comprising a conveyor adapted and configured to transport the ~~object~~ medical or dental instrument or device ~~through the system~~ the first station and the dryer.

30. (Canceled)

31. (Currently amended) The system of claim 1, further comprising a second station, wherein:

~~the first station comprises the sonicator and is adapted and configured to circulate at the first station and spray around and against the object the wash composition, the antimicrobial composition, the rinse composition, or a plurality of these compositions; and~~

~~the second station comprising~~ comprises a second holder, a third sonicator, a second liquid transmitter transporter, sterilant system, a first emitter, dryer, or a combination thereof and is configured to circulate at the second station and spray around and against the object medical or

App. No.: 09/844,965
Art Unit: 1744

dental instrument or device ~~the~~ an antimicrobial composition, ~~the~~ a rinse composition, or a plurality of these compositions; ~~or a combination thereof.~~

32. (Canceled)

33. (Currently Amended) The system of claim 32, wherein the second station comprises a second spray chamber.

34-35. (Canceled)

36. (Currently Amended) The system of claim 31, wherein the second station is adapted and configured to circulate around and spray against the ~~object~~ medical or dental instrument or device ~~the~~ a rinse composition.

37. (Currently Amended) The system of claim 36, wherein the first station is adapted and configured to circulate around and spray against the ~~object~~ medical or dental instrument or device ~~the~~ a wash composition, ~~the~~ an antimicrobial composition, and ~~the~~ a first rinse composition; and the second station is adapted and configured to circulate around and spray against the ~~object~~ medical or dental instrument or device a second rinse composition.

38. (Currently Amended) The system of claim 31, wherein the second station is adapted and configured to circulate around and spray against the ~~object~~ medical or dental instrument or device ~~the~~ an antimicrobial composition and ~~the~~ a rinse composition.

39. (Currently Amended) The system of claim 38, wherein the first station is adapted and configured to circulate around and spray against the ~~object~~ medical or dental instrument or device ~~the~~ a wash composition and a first rinse composition; and the second station is adapted and configured to circulate around and spray against the ~~object~~ medical or dental instrument or device ~~the~~ an antimicrobial composition and a second rinse composition.

App. No.: 09/844,965
Art Unit: 1744

40. (Original) The system of claim 31, wherein the second station comprises the dryer.

41. (Canceled)

42. (Currently amended) The system of claim 31, further comprising a third station, wherein:

~~the first station comprises the sonicator and is adapted and configured to circulate at the first station and spray around and against the object the wash composition, the antimicrobial composition, or a plurality of these compositions;~~

~~the second station is adapted and configured to circulate at the second station and spray around and against the object the antimicrobial composition, the rinse composition, or a plurality of these compositions; and~~

the third station ~~comprising~~ comprises a third holder, a fourth sonicator, a third liquid transmitter transporter, sterilant system, a second emitter, dryer, or a combination thereof and being configured to circulate at the third station and spray around and against the object medical or dental instrument or device the an antimicrobial composition, the a rinse composition, or a plurality of these compositions; or a combination thereof.

43. (Original) The system of claim 42, wherein the third station comprises the dryer.

44. (Canceled)

45. (Currently Amended) The system of claim 42, wherein the third station is adapted and configured to circulate around and spray against the ~~object~~ medical or dental instrument or device the a rinse composition.

46. (Currently Amended) The system of claim 45, wherein the third liquid transporter transport system comprises a third sprayer at the third station and adapted and configured to apply the a rinse composition to the object medical or dental instrument or device.

App. No.: 09/844,965
Art Unit: 1744

47. (Currently Amended) The system of claim 46, wherein the third station comprises a third spray chamber.

48-54. (Canceled)

55. (Currently amended) The system of claim 42, further comprising a fourth station, wherein:

~~the first station comprises the sonicator and is adapted and configured to circulate at the first station and around and spray against the object the wash composition, the antimicrobial composition, or a plurality of these compositions;~~

~~the second station is adapted and configured to circulate at the second station and around and spray against the object the antimicrobial composition, the rinse composition, or a plurality of these compositions;~~

~~the third station is adapted and configured to circulate at the third station and around and spray against the object the antimicrobial composition, the rinse composition, or a plurality of these compositions; and~~

the fourth station ~~comprising~~ comprises a fourth holder, a fifth sonicator, a fourth liquid transmitter transporter, sterilant system, a third emitter, dryer, or a combination thereof and being configured to circulate at the ~~second~~ fourth station and spray around and against the object medical or dental instrument or device ~~the~~ an antimicrobial composition, ~~the~~ a rinse composition, or a plurality of these compositions; ~~or a combination thereof.~~

56. (Original) The system of claim 55, wherein the fourth station comprises the dryer.

57. (Canceled)

58. (Currently Amended) The system of claim 55, wherein the fourth station is adapted and configured to circulate around and spray against the object medical or dental instrument or device ~~the~~ a rinse composition.

App. No.: 09/844,965
Art Unit: 1744

59. (Currently Amended) The system of claim 58, wherein the ~~liquid transport system~~ the fourth liquid transporter comprises fourth sprayer in the fourth station and adapted and configured to apply ~~the a~~ a rinse composition to the ~~object~~ medical or dental instrument or device.

60. (Original) The system of claim 59, wherein the fourth station comprises a fourth spray chamber.

61-66. (Canceled)

67. (Currently amended) The system of claim 55, further comprising a fifth station, wherein:

~~the first station comprises the sonicator and is adapted and configured to circulate at the first station and around and spray against the object the wash composition, the antimicrobial composition, or a plurality of these compositions;~~

~~the second station is adapted and configured to circulate at the second station and around and spray against the object the antimicrobial composition, the rinse composition, or a plurality of these compositions;~~

~~the third station is adapted and configured to circulate at the third station and around and spray against the object the antimicrobial composition, the rinse composition, or a plurality of these compositions;~~

~~the fourth station is adapted and configured to circulate at the fourth station and around and spray against the object the antimicrobial composition, the rinse composition, or a plurality of these compositions;~~

the fifth station ~~comprising~~ comprises a fifth holder, a sixth sonicator, a fifth liquid transmitter transporter, ~~sterilant system, a fourth~~ emitter, dryer, or a combination thereof and being configured to circulate at the ~~second~~ fifth station and spray around and against the ~~object~~ medical or dental instrument or device ~~the an~~ a antimicrobial composition, ~~the a~~ a rinse composition, or a plurality of these compositions; ~~or a combination thereof.~~

68. (Original) The system of claim 67, wherein the fifth station comprises the dryer.

App. No.: 09/844,965
Art Unit: 1744

69. (Canceled)

70. (Currently Amended) The system of claim 67, wherein the fifth station is adapted and configured to circulate around and spray against the ~~object~~ medical or dental instrument or device ~~the~~ a rinse composition.

71. (Currently Amended) The system of claim 70, wherein the fifth liquid ~~transport system-transporter~~ comprises a fifth sprayer in the fifth station and is adapted and configured to apply ~~the~~ a rinse composition to the ~~object~~ medical or dental instrument or device.

72. (Currently Amended) The system of claim 71, wherein the fifth station comprises a fifth spray chamber.

73-74. (Canceled)

75. (Currently Amended) The system of claim 67, wherein:
the first station comprises the first sonicator and is adapted and configured to circulate ~~the~~ a wash composition;
the second station is adapted and configured to circulate a first rinse composition;
the third station is adapted and configured to circulate ~~the~~ an antimicrobial composition;
and
the fourth station is adapted and configured to circulate a second rinse composition.

76. (Currently amended) The system of claim 67, further comprising a sixth station, wherein:

~~the first station comprises the sonicator and is adapted and configured to circulate at the first station and around and spray against the object the wash composition, the antimicrobial composition, or a plurality of these compositions;~~

App. No.: 09/844,965
Art Unit: 1744

~~the second station is adapted and configured to circulate at the second station and around and against the object the antimicrobial composition, the rinse composition, or a plurality of these compositions;~~

~~the third station is adapted and configured to circulate at the third station and around and spray against the object the antimicrobial composition, the rinse composition, or a plurality of these compositions;~~

~~the fourth station is adapted and configured to circulate at the fourth station and around and spray against the object the antimicrobial composition, the rinse composition, or a plurality of these compositions;~~

~~the fifth station is adapted and configured to circulate at the fifth station and around and spray against the object the rinse composition, the fifth station comprises the dryer, the fifth station comprises the apparatus to add gaseous sterilant, or a combination thereof, and~~

~~the sixth station comprising a sixth holder, a seventh sonicator, a sixth liquid transmitter transporter, sterilant system, a fifth emitter, dryer, or a combination thereof.~~

77-118. (Canceled)